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Look Good WALT. WE
ED 178B-1-Air-Fed
Incinerators

25 March 1960

MEMORANDUM FOR THE RECORD

SUBJECT: Burning Test of Model 2 Incinerator

1. On the 22nd of March I visited [redacted] 25X1
for the purpose of witnessing a burning test of the Model 2 Air-Fed Incinerator. Previously, I had seen a cardboard mockup of this model incinerator, but this was the first I had seen of the prototype unit as well as a burning test.

2. Prior to my visit [redacted] personnel had conducted nine burning tests. 25X1
The test which I observed was the tenth. The results of these tests are listed below:

Test No.	Burning Time	Pounds Burned	Burning Rate
1	51 (min.)	75	88 pounds/hr.
2	124 "	200	97 "
3	36 "	40	67 "
4	37 "	70	114 "
5	141 "	200	85 "
6	106½ "	200	113 "
7	90 "	200	133 "
8	104 "	200	115 "
9	87 "	200	138 "
10	46 "	84	110 "

The materials for these tests range from telephone directories to 3"x8" IBM cards, including insurance tablets with carbon paper enclosed.

3. When the experiments were first started we were initially getting too much agitation. As a result of this, the air being introduced at the secondary level of nozzles was doubled. In addition, the stainless steel liner was getting hot spots with temperatures around 1500-1600°F. The louver openings were enlarged from .025 to .031 inches. This louver opening is now equal to that in the Model 1 Air-Fed Incinerator. Fourty-two percent of the air introduced to the inner chamber passes through the louvers. It has been determined that 800 CFM at a static pressure of 4-inches of water is necessary for optimum operation. A 1½ HP motor-blower arrangement will be adequate for this operation. Buffalo Forge Company produces a motor-blower assembly (#22 Volume Fan) of the following characteristics: 1½ HP, 3450 RPM, 800 CFM, 4" SP; weight: 160 lbs. with motor; cost: $213 plus $4 for starter (total - $254): Three week delivery can be obtained.

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4. I asked [redacted] to conduct three additional batch burning tests to help further establish rates. Each of these tests will consist of loading the incinerator to its maximum with a definite type of material (IBM Cards, telephone directories and homogeneous mixture of all types) and allow the unit to operate until complete burnout occurs. After these three tests are completed a full day burning test of 7-8 hours continuous (homogeneous mixture) will be conducted. This test is tentatively set for 5 April at which time I hope to be in attendance along with [redacted] of the Office of Security. (The same day the first burning test of the prototype of the Model 3 Air-Fed Incinerator will be conducted.) Procurement of the Motor-blower assembly is also to be made. These four prescribed tests along with the procurement of the motor-blower will exhaust the funds currently committed on the task. 25X1 25X1

5. Further work still exists before the completion of the development of this size or model incinerator. The following steps must still be taken:

A. Installation of the motor-blower
B. Design and fabrication of a damper, interconnecting interlock system, sound proofing of the bottom chamber, and fabrication of an inspection door with louvers (bulge).
C. Standard made stack of 24-inch length
D. Paint an asthetically attractive color
E. Conduct a 200 pound test with telephone directories
F. Conduct a 200 pound test with bags of waste files (A.W.'s office)
G. Conduct 8-hour test the same as the test prescribed for the April 5 test.

This additional effort will cost approximately $4300.

[redacted] 25X1

Attachment

MC

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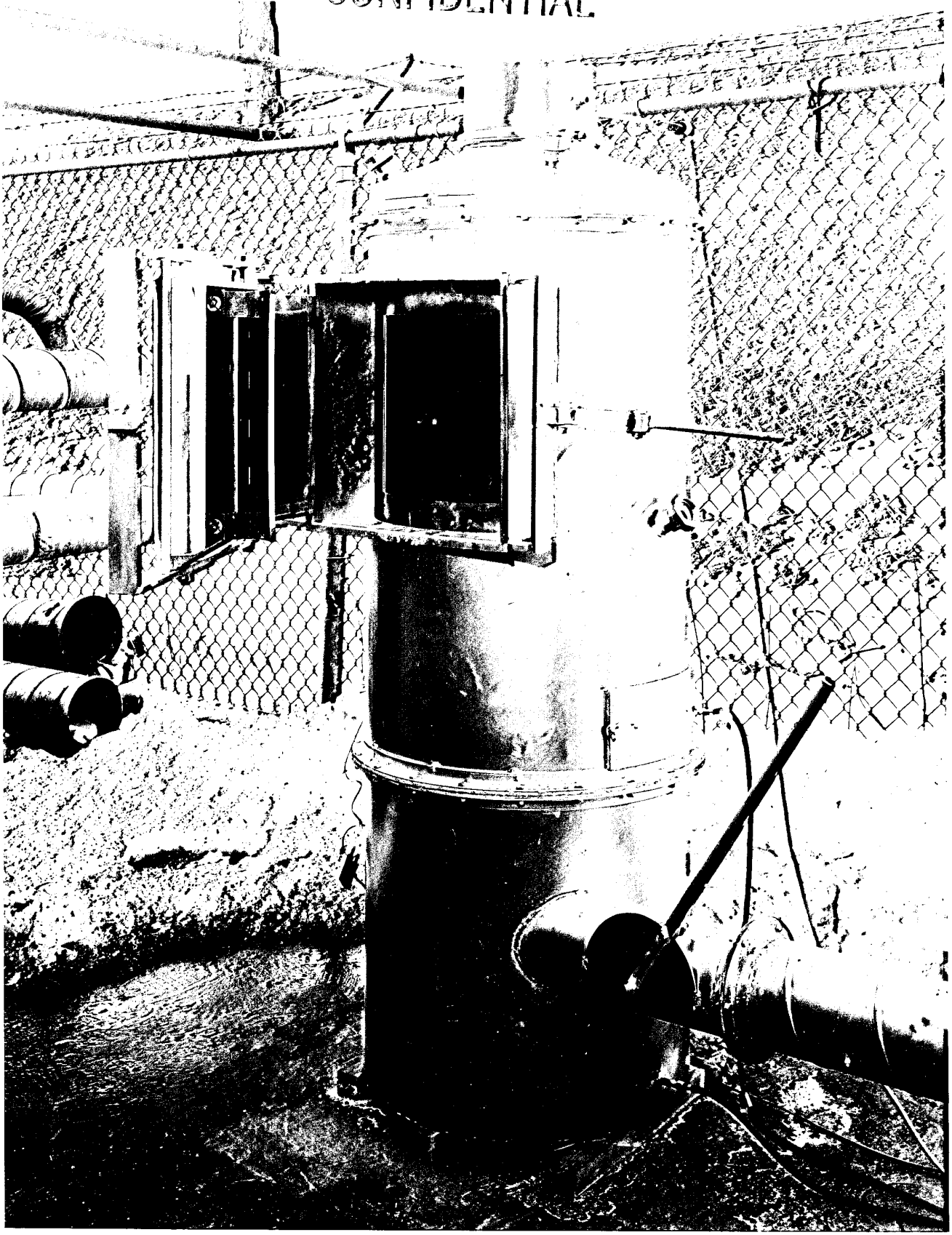

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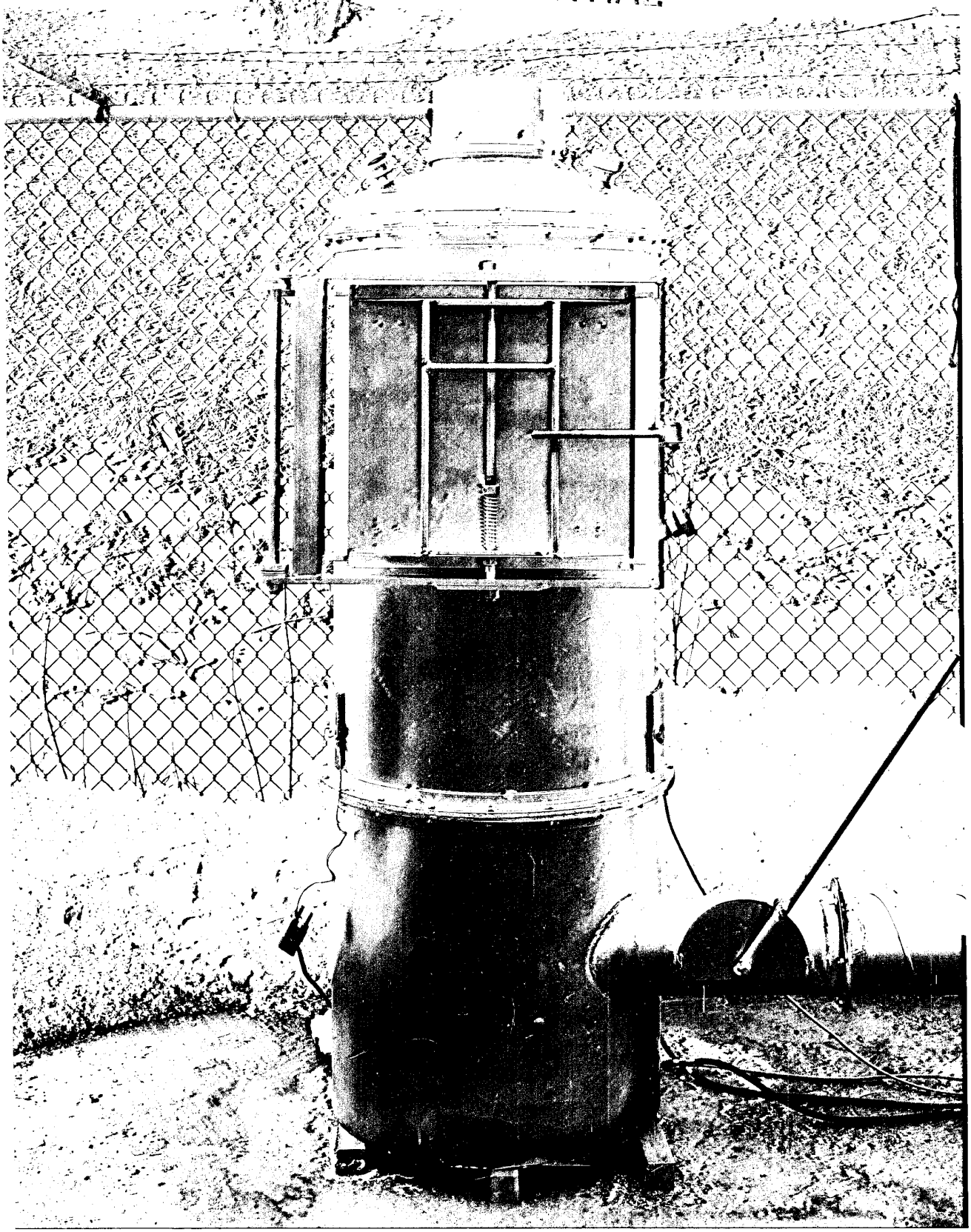

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